

FCC Proceeding 04-186

Comments of Paul Burkholder

Re: the FCC's proposal to allow unlicensed transmitters to operate in the TV band.

I have been working with TV translators for over 25 years. I have been a viewer of TV translators for over 40 years. I believe the proposal to allow unlicensed operation of transmitters in the TV band (Docket 04-186) would have serious negative effects on viewers of TV translators. I have listed some of the problems and possible solutions below:

Problem: Broadcast digital television is new to most of the viewing public, especially viewers of translators. If an unlicensed device is near enough to the ATSC receiver to cause interference, the viewer will not recognize this to be interference from some outside source. The ATSC receiver will simply quit working on the channel(s) receiving interference and the disgruntled viewer will believe that broadcast digital television is not reliable.

Solution: Any proposal to operate unlicensed transmitters in the TV band(s) should not be considered until after the transition to digital TV broadcasting is complete and viewers have a sense of the performance and reliability of signals in their area.

Problem: Most TV translators operate well beyond any protected area of the station (primary or another translator) that provides their input. The FCC does not keep an up-to-date database of the signals used for translator inputs. Allowing unlicensed transmitters to operate in the TV band without protecting translator inputs would cause immediate and severe interruptions to viewers of both analog and digital translators. Additionally, translators are sometimes able to use a secondary, less desirable input signal should the primary input have temporary technical problems. Further, viewers of publicly owned translators (there are many of these) sometimes wish to change the primary station(s) being re-broadcast by their translator(s). Unlicensed transmitters operating on "vacant" channels would limit the flexibility of a translator to use different input signals.

Solution: Any proposal to operate unlicensed transmitters in the TV band(s) should not be considered until a translator input database is available that can reliably and very easily be kept up-to-date. Users of unlicensed transmitters could not operate on frequencies that would cause interference to translator inputs.

Problem: A very large percentage of translator viewers in the western states live outside the areas that would be protected from interference by unlicensed transmitters under this proposal. They successfully watch television by using outside, directional antennas to receive weak signals. These viewers could see their broadcast television eliminated or

severely limited by unlicensed transmitters operating nearby or anywhere between them and the translators they are trying to receive.

Solution: The FCC must recognize that many viewers live outside the areas proposed for protection. Significant adjustments to proposed protected contours (in the order of 10db) and the ability to protect pockets of viewers in areas of very low signals are needed.

Problem: The FCC currently allows unlicensed operation in the 2.4GHz and 5.8GHz bands. The equipment and operators using the TV bands in this new proposal would likely be similar to the operators and devices already being used. Problems occur when users of these devices seek to maximize their coverage areas by locating transmitters at established and often crowded communications sites. The devices are rarely “professionally installed” and are often placed without regard to existing antenna patterns. Further, while these devices are quite resistant to interference themselves, they often generate noise outside their assigned band. The nature of the signals, combined with the fact that they are unlicensed, makes it very difficult to determine who is causing interference.

Solution: At the least, transmitters in the TV band should be licensed if they desire to operate above a very low power level. If proponents desire to locate fixed transmitters in close proximity to licensed operators in the TV band, they should also be licensed no matter what power level. Unlicensed devices operating in the TV band must continuously transmit a marker or flag that is readily identifiable using commonly available test equipment. All transmitters in the TV band should be labeled with the owner’s name and contact information.